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ABSTRACT

Eight guidelines are presented for more closely integrating television into the total instructional process and for increasing its support and use. Developed through experience with instructional television at the state network level, these guidelines advocate (1) choosing an instructional area with an identified need, (2) choosing an area with a commitment to developing a total curriculum thrust, (3) determining television's role in meeting the need, (4) structuring the programs in a manner consistent with sound learning theory, (5) utilizing results of television research, (6) ensuring accurate content, (7) conducting formative evaluations, and (8) becoming involved in the development of supplementary materials. (Author/STS)

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GUIDELINES FOR INCREASING THE EFFECTIVENESS OF INSTRUCTIONAL TELEVISION

A Presentation at the 1978 Convention
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GUIDELINES FOR INCREASING THE EFFECTIVENESS OF INSTRUCTIONAL TELEVISION

Introduction

In recent years, there has been a nationwide decline in the interest in and support of instructional television. With so many educational agencies experiencing financial difficulties and so many factions and elements of the instructional process competing for the educational dollar, in many instances instructional television has been viewed as being dispensible. It would appear that those of us who have been involved in instructional television have not been successful in making our medium of instruction a vital component of the total instructional system.

The purpose of this paper is to set forth a series of guidelines which, if followed, would contribute to more closely integrating television into the total instructional process and, as a result, increasing its support and use.

The guidelines which are being suggested in this paper have evolved through experience in working with instructional television at three different statewide ITV networks. Illustrations of these guidelines will be drawn from the most recent of these experiences, the development and testing of a series of television programs and related resources in Pennsylvania entitled "Science for the Seventies."

Guidelines

Eight guidelines have been formulated from these experiences. These guidelines are listed below. Following the list, they are discussed individually.

In order to increase the probability of success in the application of television to instruction:

1. Choose an instructional area in which a very definite need has been identified.

2. Choose an instructional area in which there has already been a commitment made to develop a total curriculum thrust.

3. Determine what role, if any, television can play in meeting the instructional need and implementing the curriculum.

4. Structure the ITV programs in a manner which is consistent with sound learning theory.

5. Structure the ITV programs in a manner that takes into account what is known from the research in instructional television.

6. Insure that the subject matter content is accurate.

7. Conduct constant formative evaluation during the development of the project in order to discern areas for project improvements.

8. Lend support and become involved in the development of other materials, resources, and dissemination/implementation mechanisms that are a part of the total instructional system.

In order to further understand what is meant by each of these guidelines, they will be examined individually in more detail.

1. Choose an instructional area in which a very definite need has been identified.

This guideline channels the ITV producer into an area in which there is an identified need. As a result, the product of the producer's efforts will be in demand if it effectively addresses this need.

The Science for the Seventies (SFTS) instructional television project in Pennsylvania was developed on the foundation of such a need. Dramatic changes had taken place in elementary school science in the 1960s. As a result, the Pennsylvania Department of Education identified a pressing need to assist school districts and teachers in this curriculum area. The manner in which this need was addressed by the SFTS-ITV project will be discussed in subsequent sections of this paper.

2. Choose an instructional area in which there has already been a commitment made to develop a total curriculum thrust.

Some television programs and series have been planned quite independently of ongoing curriculum development efforts. As a result, once they have been produced, they are unrelated to other curriculum components and, consequently, are left in limbo.

This is another area which contributed to the success of the SFTS-ITV Project. When the Pennsylvania Department of Education identified a need to assist school districts and teachers in the area of elementary school science, it embarked on a major curriculum development effort. A committee of teachers and science educators from throughout Pennsylvania was appointed. This group developed a wealth of elementary school science resources under the title of "Science for the Seventies." As a result, the need was identified and the basic curriculum development was in place. The time had come to determine if television had a place in this instructional system.

3. Determine what role, if any, television can play in meeting the instructional need and implementing the curriculum.

This is an area that can become rather tricky. Generally, the immediate inclination is to design television programs to simply teach the subject. This is an over simplified view of the potential of television for instruction.

An aid in broadening this perspective is provided by the National Association of Educational Broadcasters in their list of twenty-two current television applications (NAEB, Television in Instruction: What is Possible, Chapter 1, 1970). It is obvious from reviewing this list that television can do more than just teach information.

This point arose rather dramatically in the SFTS-ITV project. When television was considered as an instructional resource, a dilemma was instantly encountered. Elementary school science is an area in which children must be active in their involvement with materials and constantly inquiring and experimenting. Viewing instructional television is the antithesis of this. With ITV, student activity becomes more passive.

For several months, no valid role was perceived for the teaching of science on television. No progress was made until the SFTS Committee accepted the basic proposition that instructional television and the teaching of elementary school science are totally incompatible! You just cannot teach science to young children on television.

Having accepted this idea, the question arose as to whether or not television had any role at all in the SFTS program. After careful analysis of SFTS program needs, two such roles were determined. The first was the potential of using a statewide instructional television system as a vehicle for making teachers throughout Pennsylvania aware of the fact that the SFTS resources existed and were available. The second was to develop a series of instructional television programs that would be structured in such a way that, as they were used in the classroom, they would be instrumental in assisting teachers and students to more effectively engage in inquiry, process-oriented elementary school science activities. In each case, the "teaching" function of instructional television was abandoned in favor of other roles of television in the total instructional system.

4. Structure the ITV programs in a manner which is consistent with sound learning theory.

When designing programs for instructional television, careful attention must be given to what the television program is trying to accomplish and then employ instructional strategies accordingly. Presenting information, teaching a concept, introducing a psychomotor skill, and influencing an attitude each requires a different strategy based on psychological research. The instructional television producer would find the time well spent to analyze just exactly what type of learning is desired and to approach production with a thorough familiarity with theory-based instructional strategies.

As indicated previously, one of the main goals of the SFTS-ITV programs was to assist teachers to more effective teaching with a process-oriented approach. In this case, television programs and related materials were structured to

involve teachers and students in interaction during the ITV programs and, therefore, involve teachers in desirable self-modeling techniques. This required attention to the appropriate, research-based instructional strategies for self modeling which were quite different from the typical approaches to ITV production.

5. Structure the ITV programs in a manner which takes into account what is known from the research in instructional television.

Over the years, considerable research has been carried out on instructional television. Some of this research is still inconclusive. However, there have been discovered some very basic principles and guidelines that provide direction for effective ITV program development. One useful summary is the book by Chu and Schramm entitled "Learning From Television: What The Research Says."

When utilizing a summary of ITV research findings such as provided by Chu and Schramm, considerable caution must be exercised. It is important to understand that these findings are tentative and that subsequent research will provide new perspectives and insights. However, there is still considerable value in weighing the current research results and how they might influence the structure of an ITV program that is in production.

While working on the SFTS-ITV project, every major production technique was questioned. On some occasions, changes were made in light of existing research. However, it is significant to point out that directions were taken, even though contradictory to research findings, when a compelling rationale was developed for deviating in this way. This, it would seem, is an important consideration. It is one thing to digress from a theoretical and research base through ignorance or it is possible to do so with a carefully developed rationale. The difference between the former and latter behaviors probably distinguish the difference between non-professional and professional behaviors.

6. Insure that the subject matter content is accurate.

It has been a tragic experience of some expensive, well-produced instructional television programs that, once they were released, questionable, if not inaccurate, content has been detected. The programs were doomed to obscurity unless major revisions could be undertaken.

To avoid this in the SFTS-ITV project, professors of science were invited to view the programs and critique the subject matter content. This provided valuable input into the project.

There is, however, one major consideration in employing this kind of process. For example, SFTS-ITV programs were prepared for elementary school children. It is important that, in cases such as this, content area specialists are understanding of the nature of the viewing audience. Lack of such understanding, in the case of SFTS, could have resulted in dissatisfaction with the thoroughness and the level of sophistication of the scientific concepts and explanations offered. Such critiques by content specialists must, therefore, be taken on advisement and weighed in light of numerous other considerations. However, through such a review, glaring inaccuracies in content can be effectively avoided.

7. Conduct constant formative evaluation during the development of the project in order to discern areas for project improvement.

There is a constant danger for an ITV production team to become so absorbed in the day-to-day needs and problems of production that the individuals on that team lose touch with the eventual target audience. The result can be that, once the program is produced, it is not fully acceptable to its intended audience.

To avoid this difficulty, constant contact must be built in to the overall production schedule. Again, the SFTS-ITV project can provide some illustrations.

Even before television production was initiated, the project team went into elementary school classrooms to try out the lessons upon which the television productions would be based. Observations and feedback were then channeled into the production planning process.

Program segments, preliminary versions of programs, and initial programs in a series were taken before target audiences as soon as possible to gain reactions to the general appropriateness as well as specific characteristics of the format and approach. In this way, problems could be identified early in the project, corrections made and, if necessary, new directions developed.

8. Lend support and become involved in the development of other materials, resources, and dissemination/implementation mechanisms which are a part of the total instructional system.

If television is to be successful in education, it must be closely linked with other available instructional resources which focus on a particular learning need. A lack of this coordination can result in television becoming an isolated resource and, thus, not capable of making a major instructional impact.

This is an area in which the SFTS-ITV Project directed particular attention. Early in the project design stage, individuals were brought together representing a wide variety of instructional media and administrative channels. Included were representatives of such diverse resources as newspapers, television, radio, telephone, school intermediate units, broadcast councils, computers, community cable, professional associations, institutions of higher education, professional journals, newsletters, and numerous other institutions, agencies, and resources. The goal was to develop a multi-faceted, integrated system that takes maximum advantage of the unique features of each of these important elements.

The result of this effort has been to put television into the perspective of a total instructional system with each component doing the portion of the task that it can do best.

At present, procedures are being developed for determining specific needs in elementary school science and linking the particular system component to that need in order to efficiently overcome specific instructional problems. Television is a vital, integral part of the total system.

Conclusions

As instructional television is examined for its place in the total instructional plan of the future, to become a high priority, its specific role must be clearly and precisely defined. The purpose of these guidelines is to assist instructional television producers in formulating a valid rationale for their products and insure greater success and a more secure place for television in the educational systems of the future.